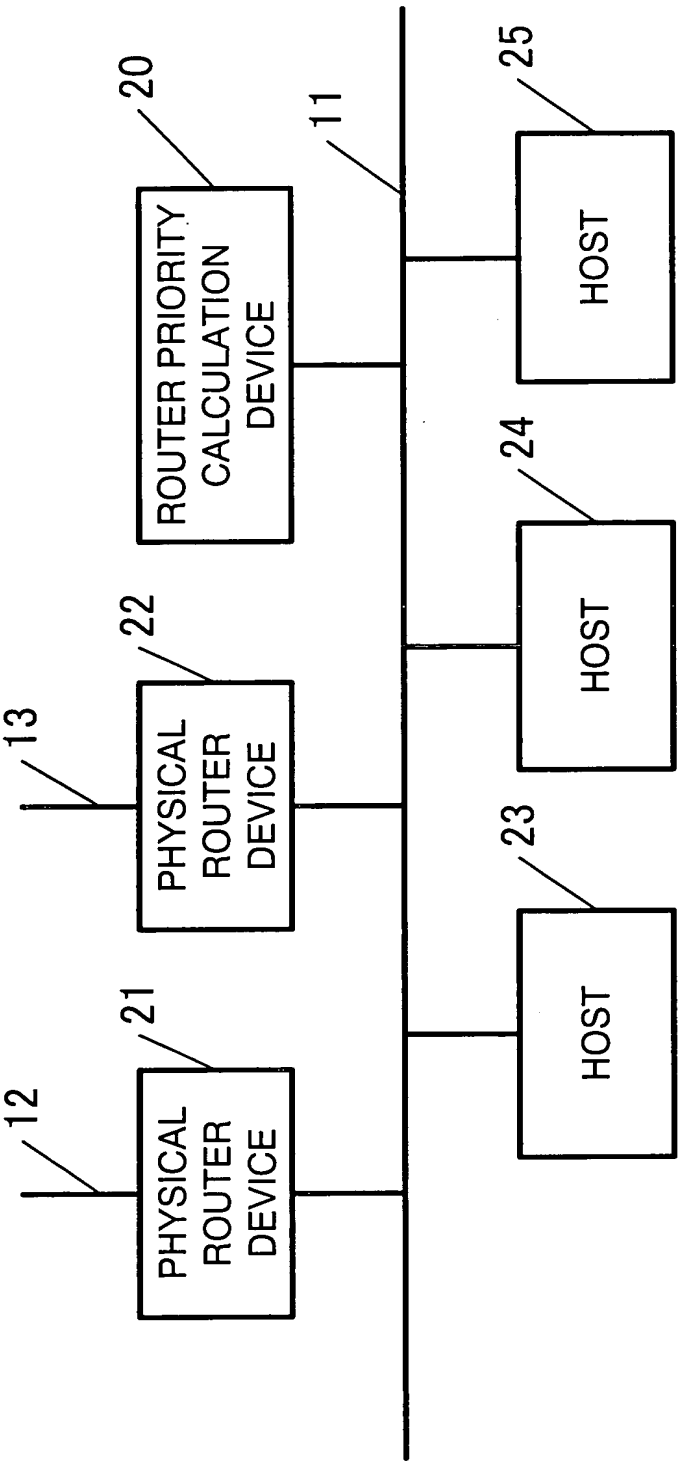
ROUTER PRIORITY CALCULATION DEVICE
20
11
25
HOST
24
HOST
22
PHYSICAL ROUTER DEVICE
13
23
HOST
21
PHYSICAL ROUTER DEVICE
12

FIG.1

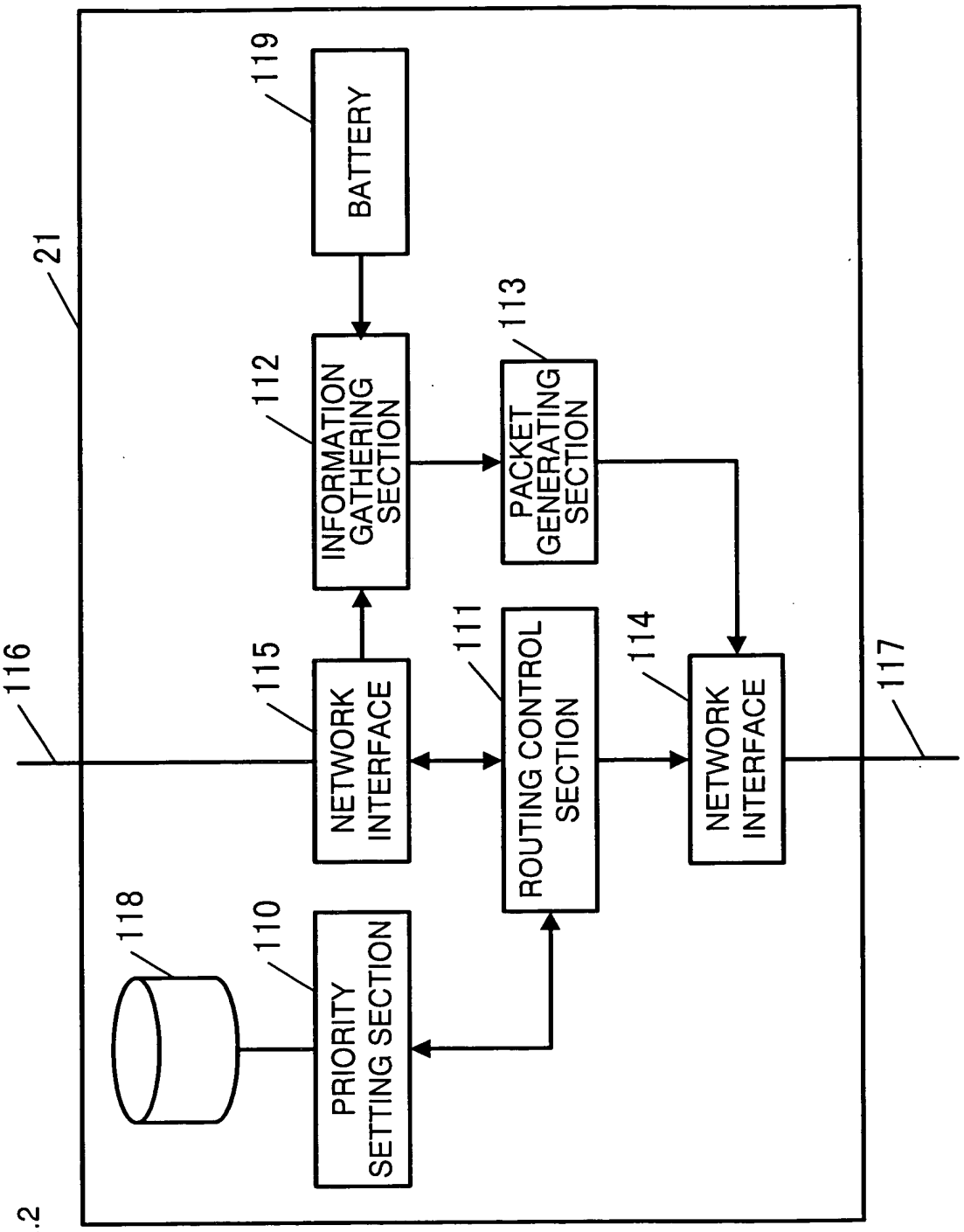
21
119
BATTERY
112
INFORMATION GATHERING SECTION
113
PACKET GENERATING SECTION
116
115
NETWORK INTERFACE
111
ROUTING CONTROL SECTION
114
NETWORK INTERFACE
117
118
110
PRIORITY SETTING SECTION

FIG.2

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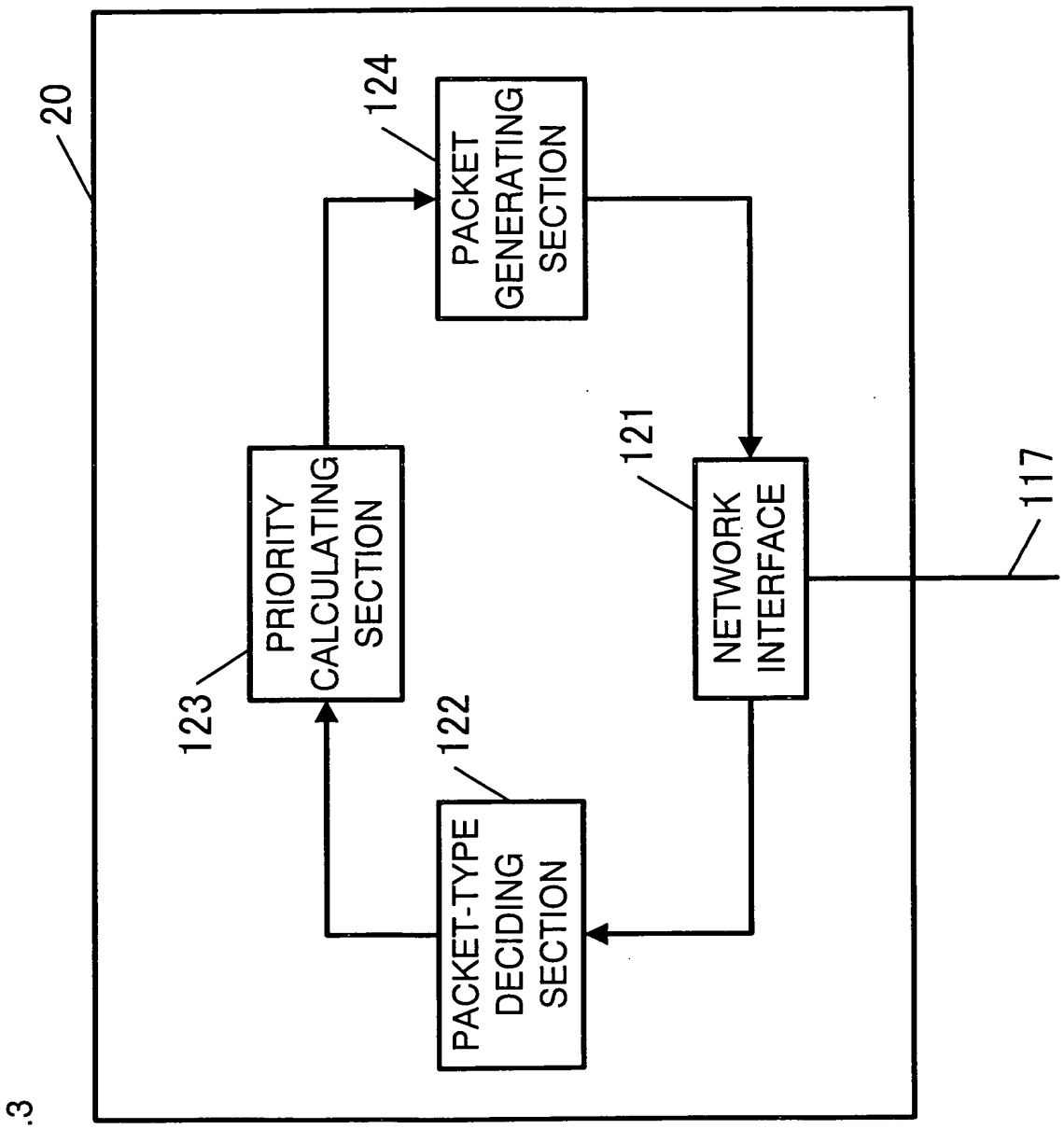

FIG.3

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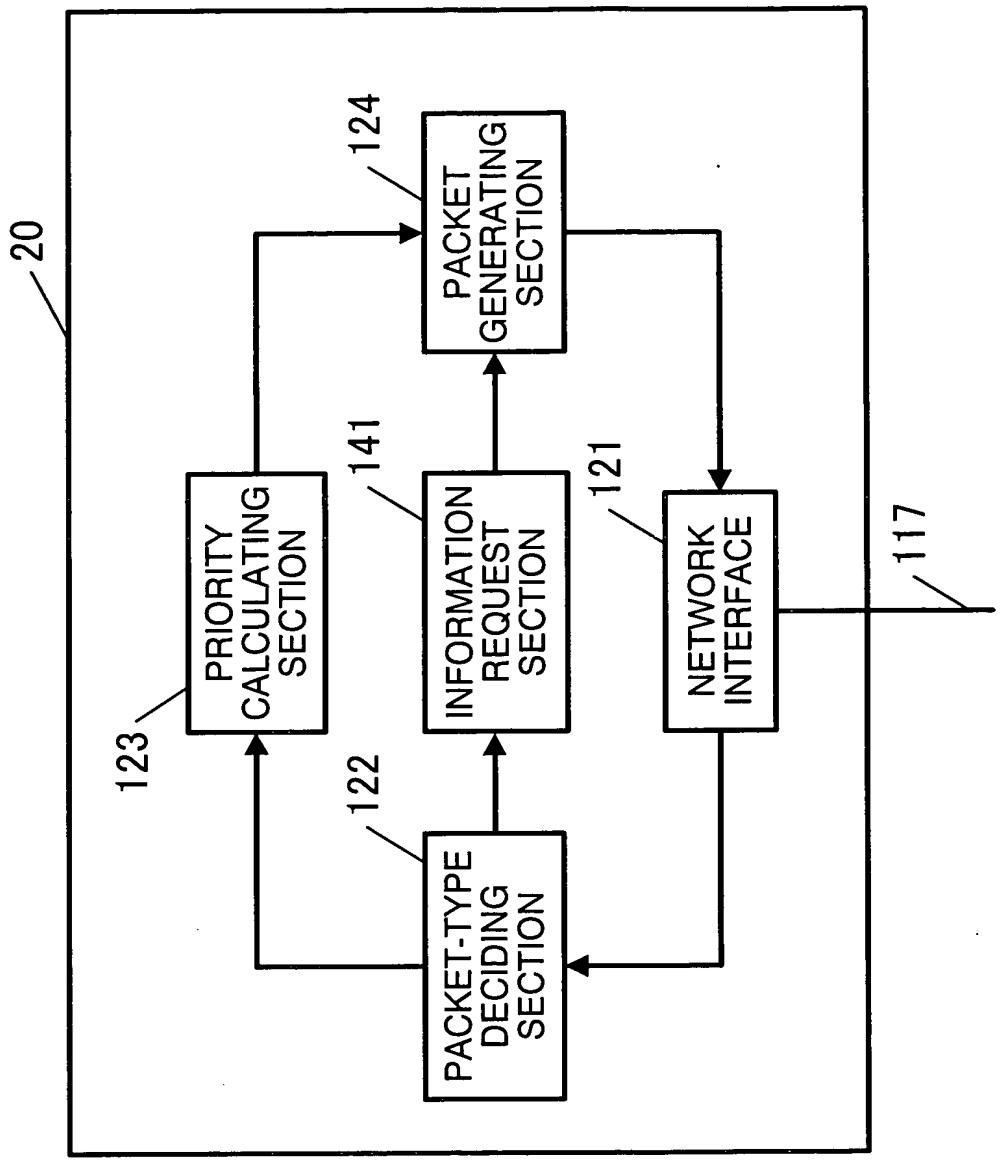

FIG.4

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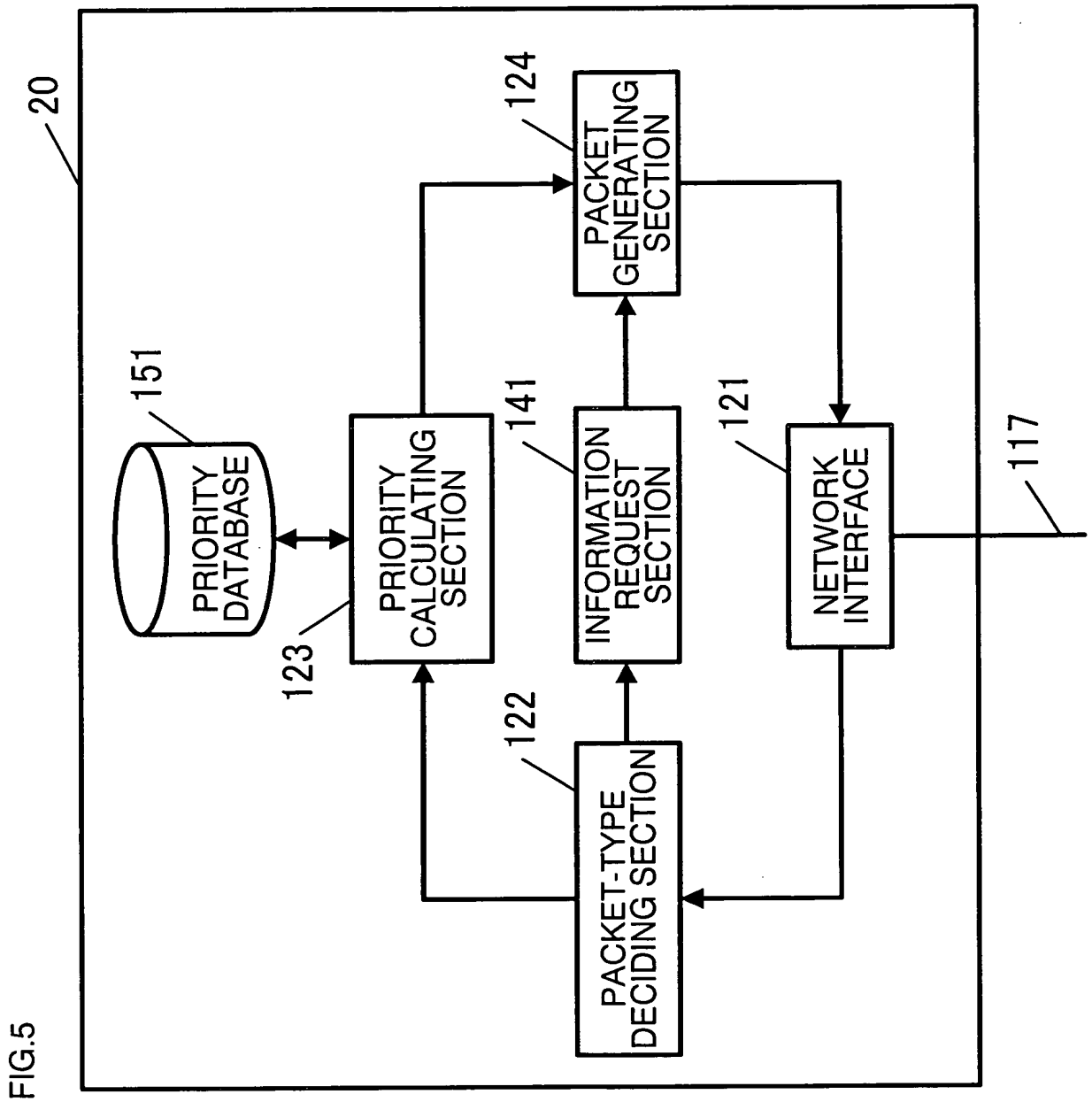

FIG.5

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FIG.6

601 IDENTIFIER	602 PRIORITY	603 LINK STATUS	604 CONGESTION DEGREE	605 BATTERY REMAINING CAPACITY
192.168.1.1	224	1	0.70	0.90
192.168.1.2	190	1	0.50	0.90

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FIG.7

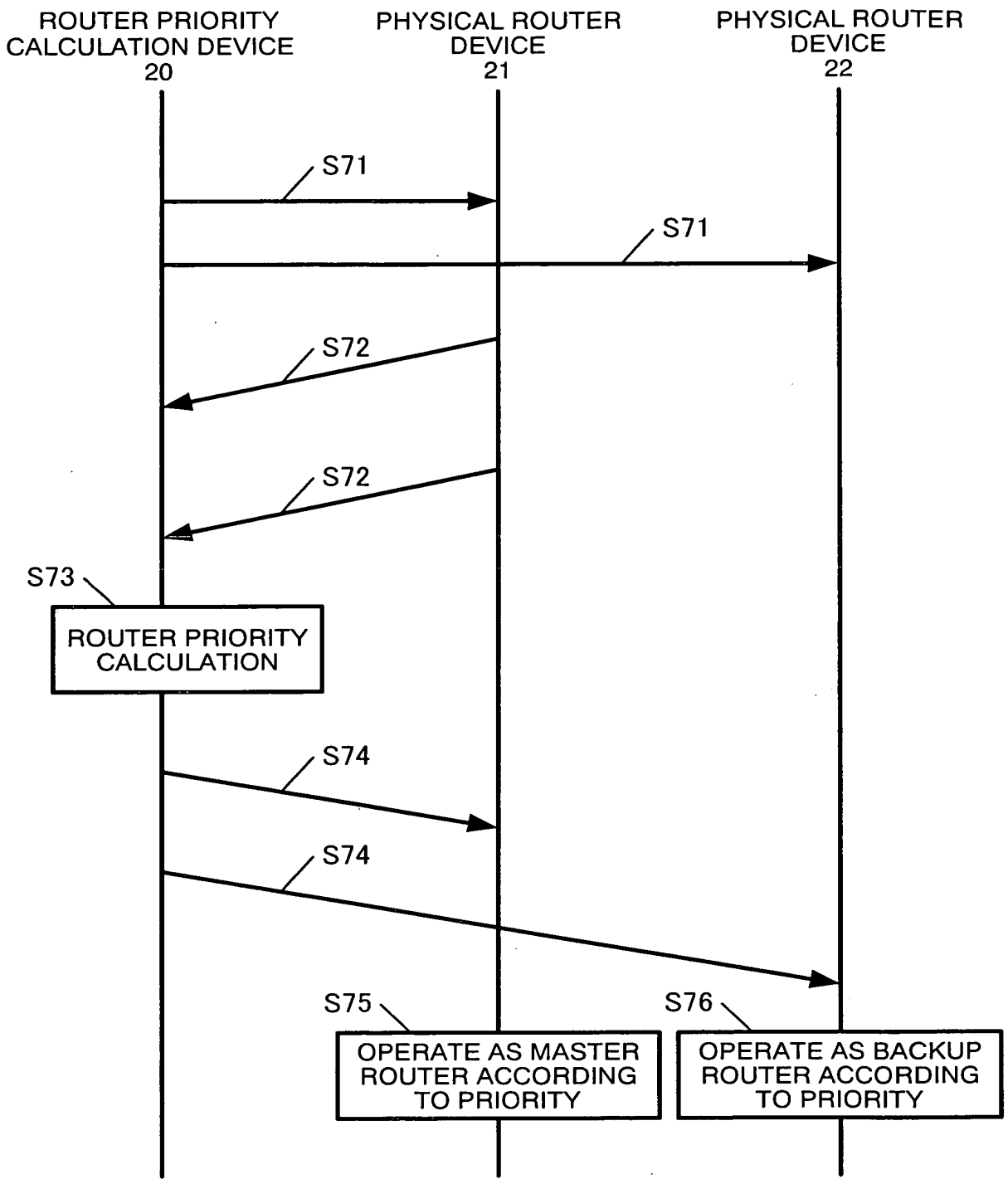

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FIG.8

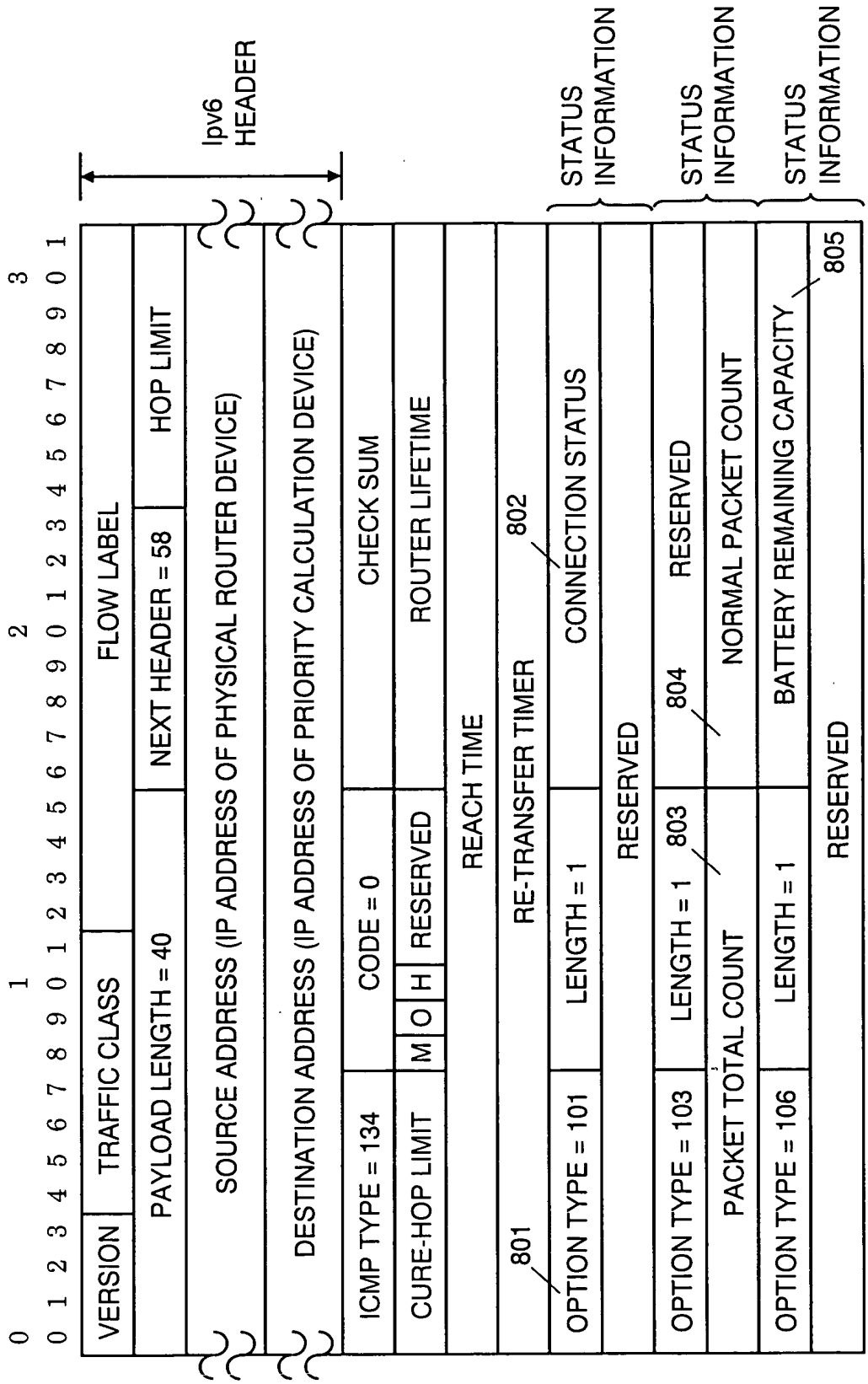

FIG.9

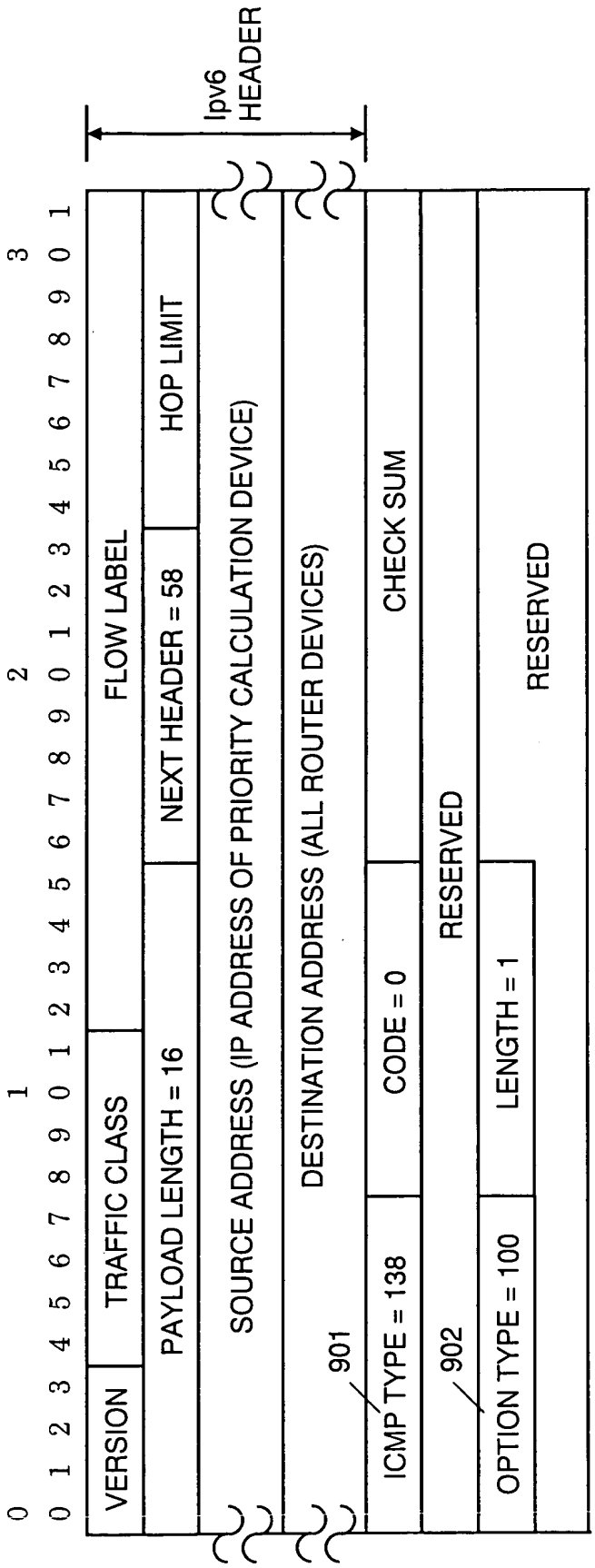
0 1 2 3
0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1
VERSION
TRAFFIC CLASS
FLOW LABEL
PAYLOAD LENGTH = 16
NEXT HEADER = 58
HOP LIMIT
SOURCE ADDRESS (IP ADDRESS OF PRIORITY CALCULATION DEVICE)
DESTINATION ADDRESS (ALL ROUTER DEVICES)
ICMP TYPE = 138
CODE = 0
CHECK SUM
RESERVED
OPTION TYPE = 100
LENGTH = 1
RESERVED
901
902
Ipv6 HEADER

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FIG.10

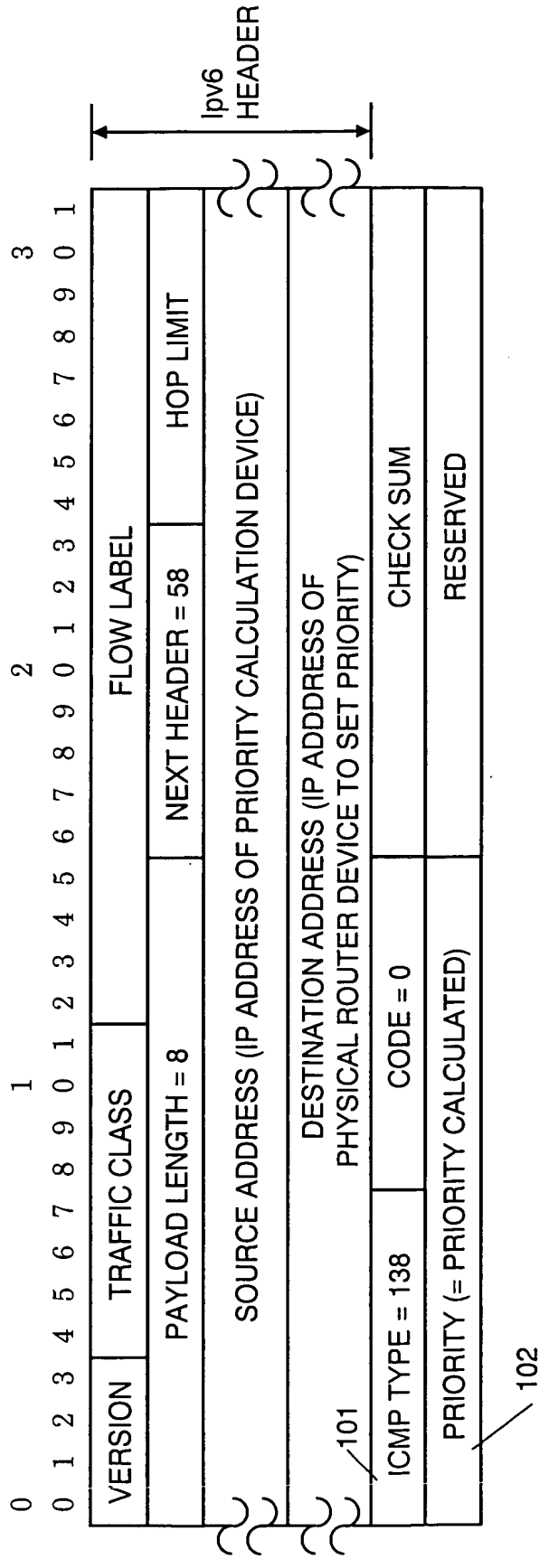

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FIG.11A

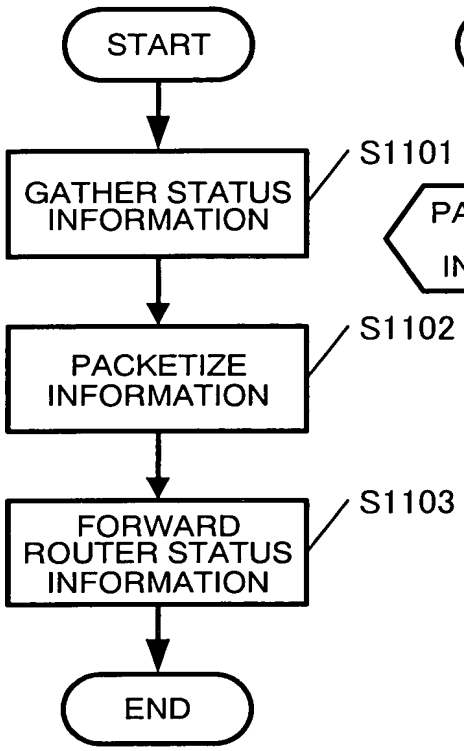

FIG.11B

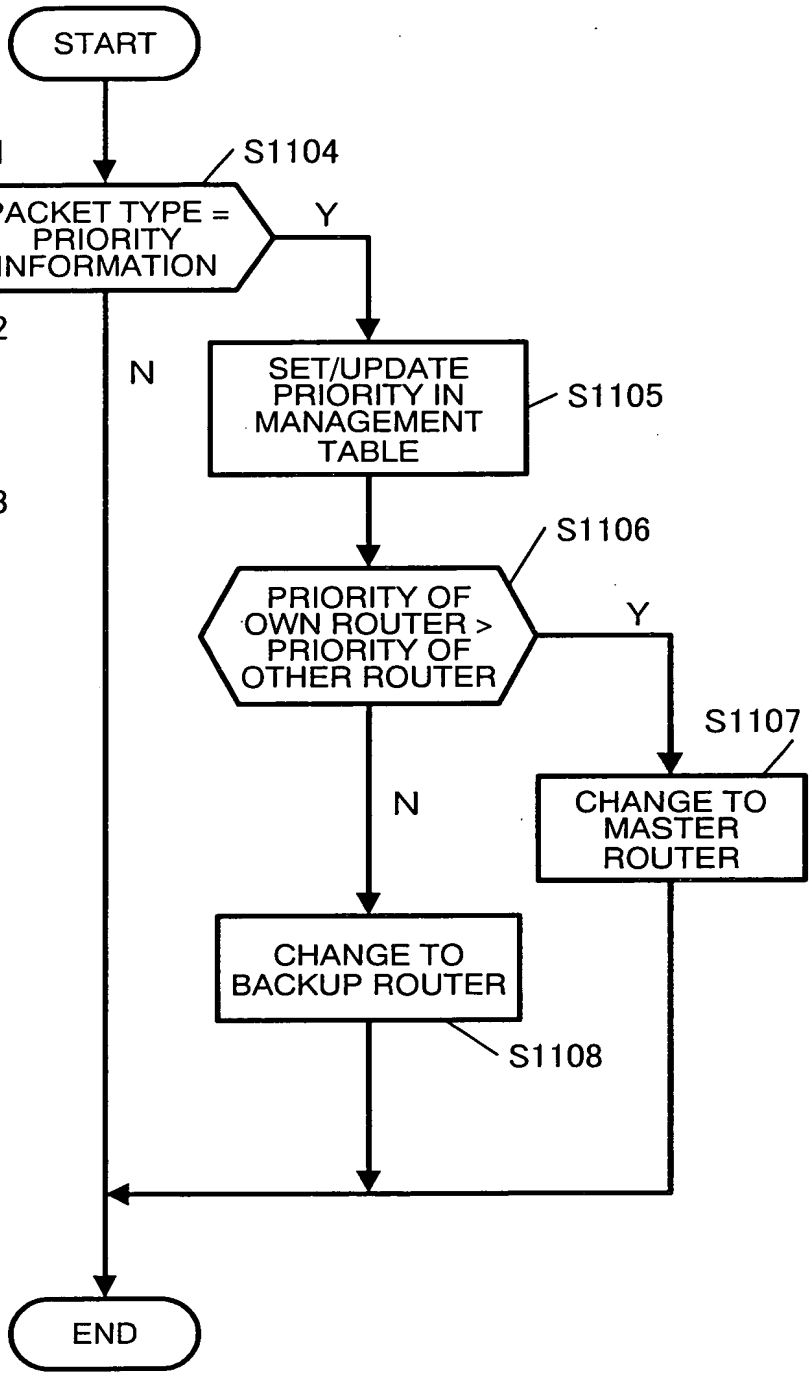

FIG.12

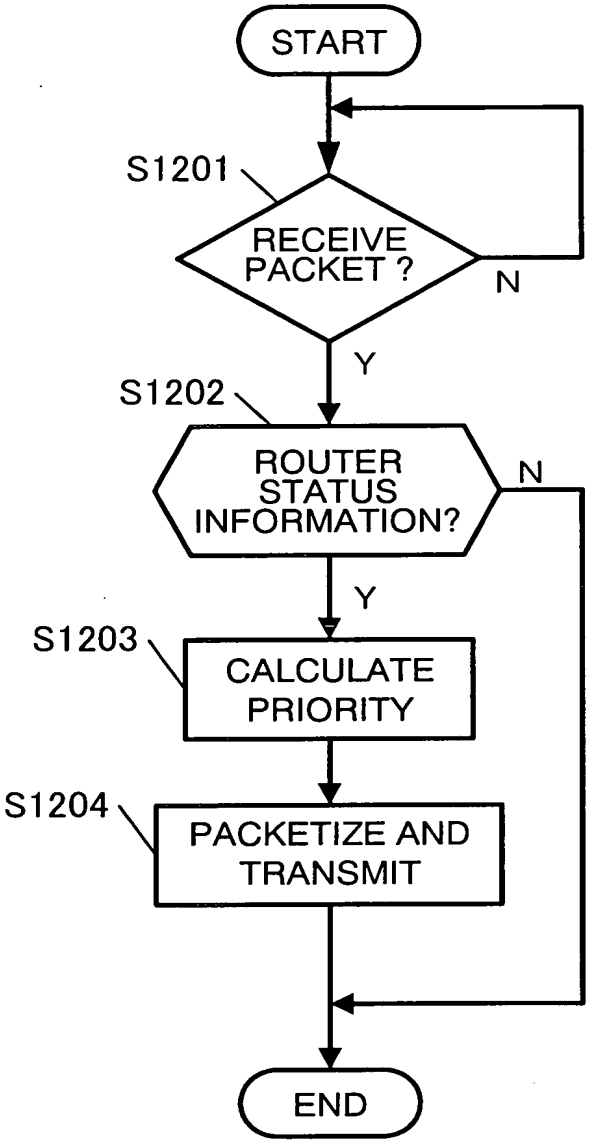
START
S1201
RECEIVE PACKET ?
N
Y
S1202
ROUTER STATUS INFORMATION?
N
Y
S1203
CALCULATE PRIORITY
S1204
PACKETIZE AND TRANSMIT
END

FIG.13

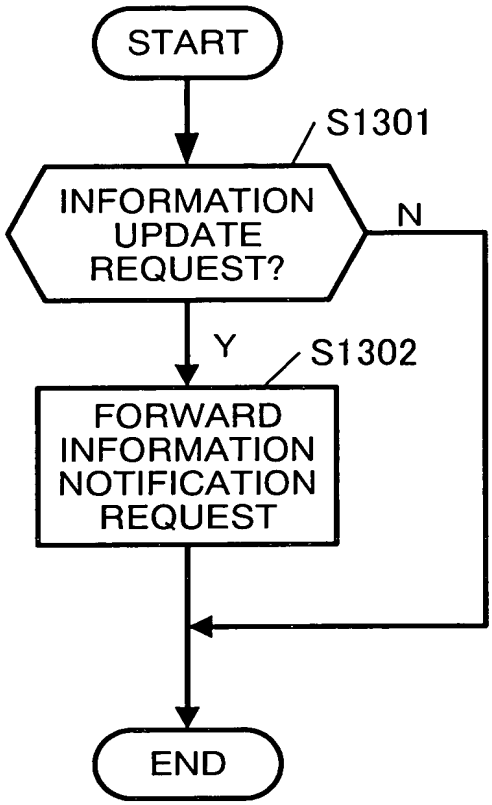
START
S1301
INFORMATION UPDATE REQUEST?
N
Y
S1302
FORWARD INFORMATION NOTIFICATION REQUEST
END

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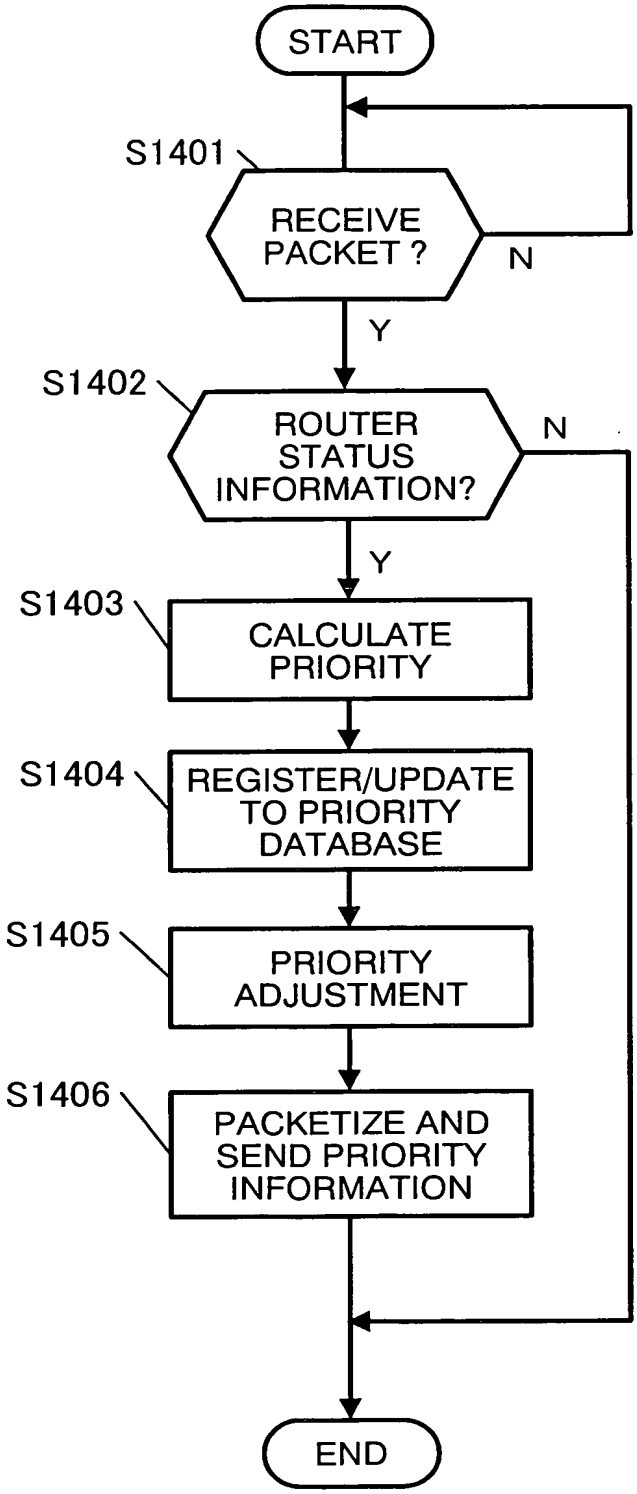
FIG.14



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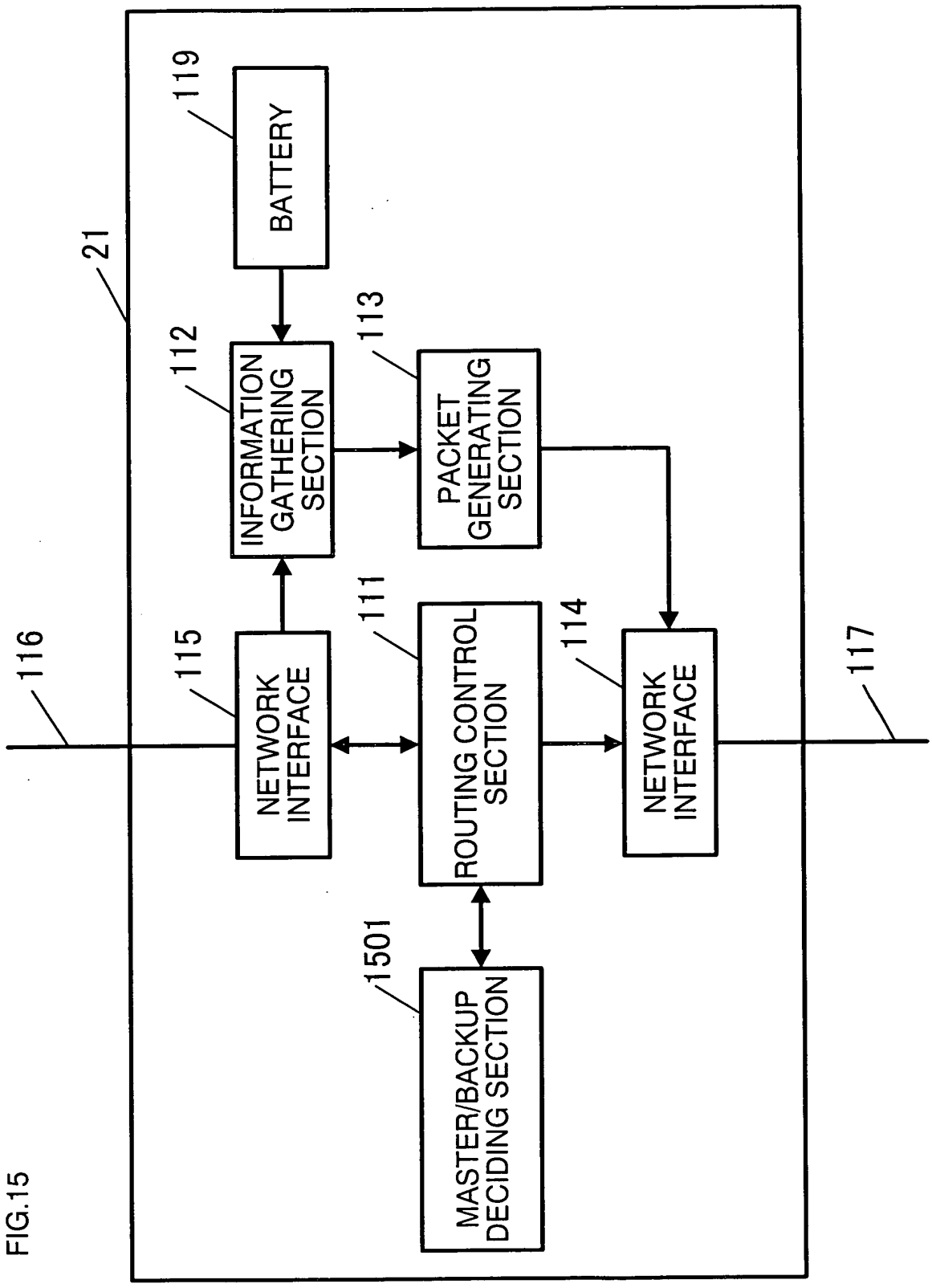


FIG.15

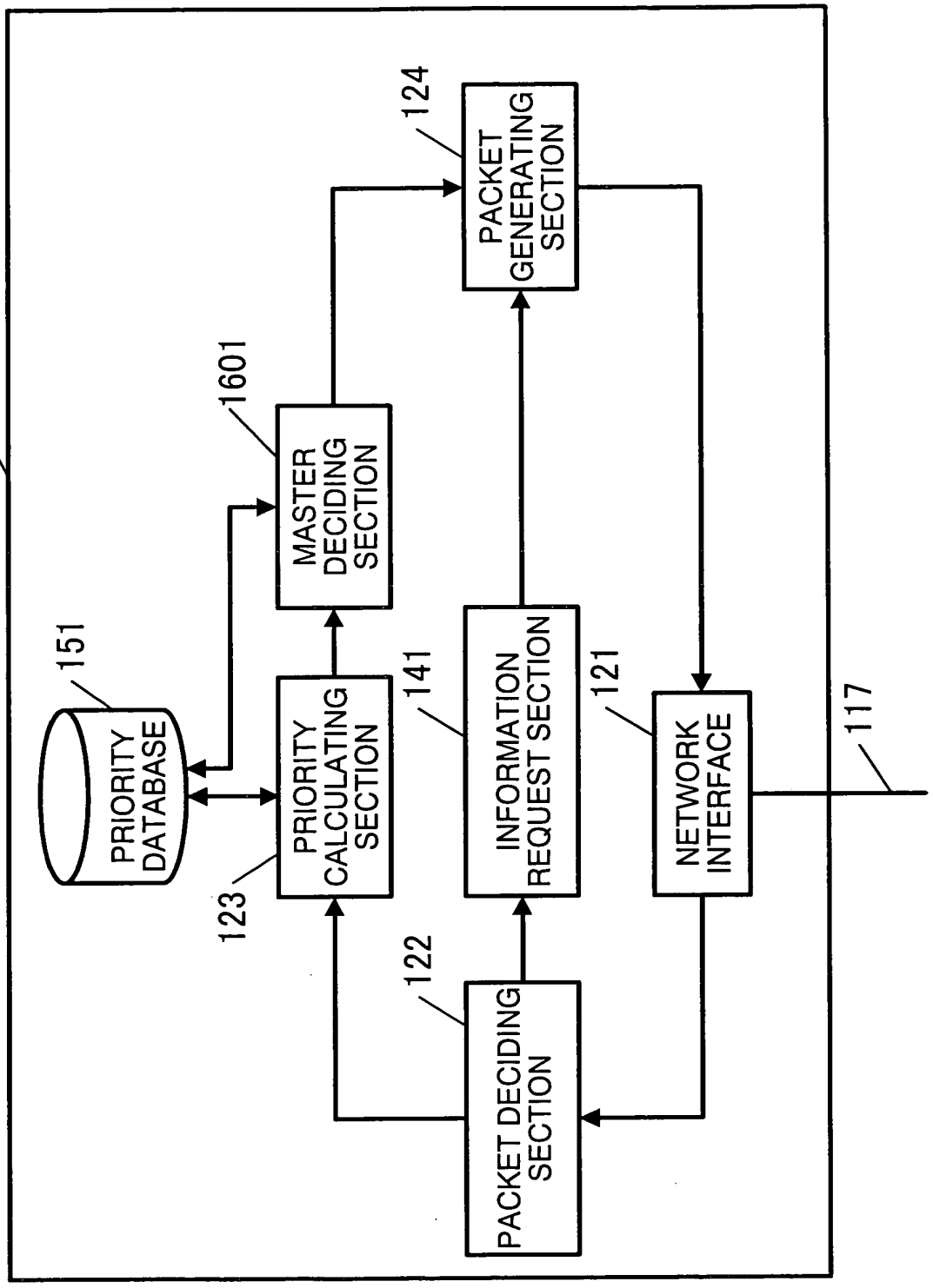

20
PRIORITY DATABASE
151
PRIORITY CALCULATING SECTION
123
MASTER DECIDING SECTION
1601
PACKET GENERATING SECTION
124
INFORMATION REQUEST SECTION
141
PACKET DECIDING SECTION
122
NETWORK INTERFACE
121
117

FIG.16

FIG.17

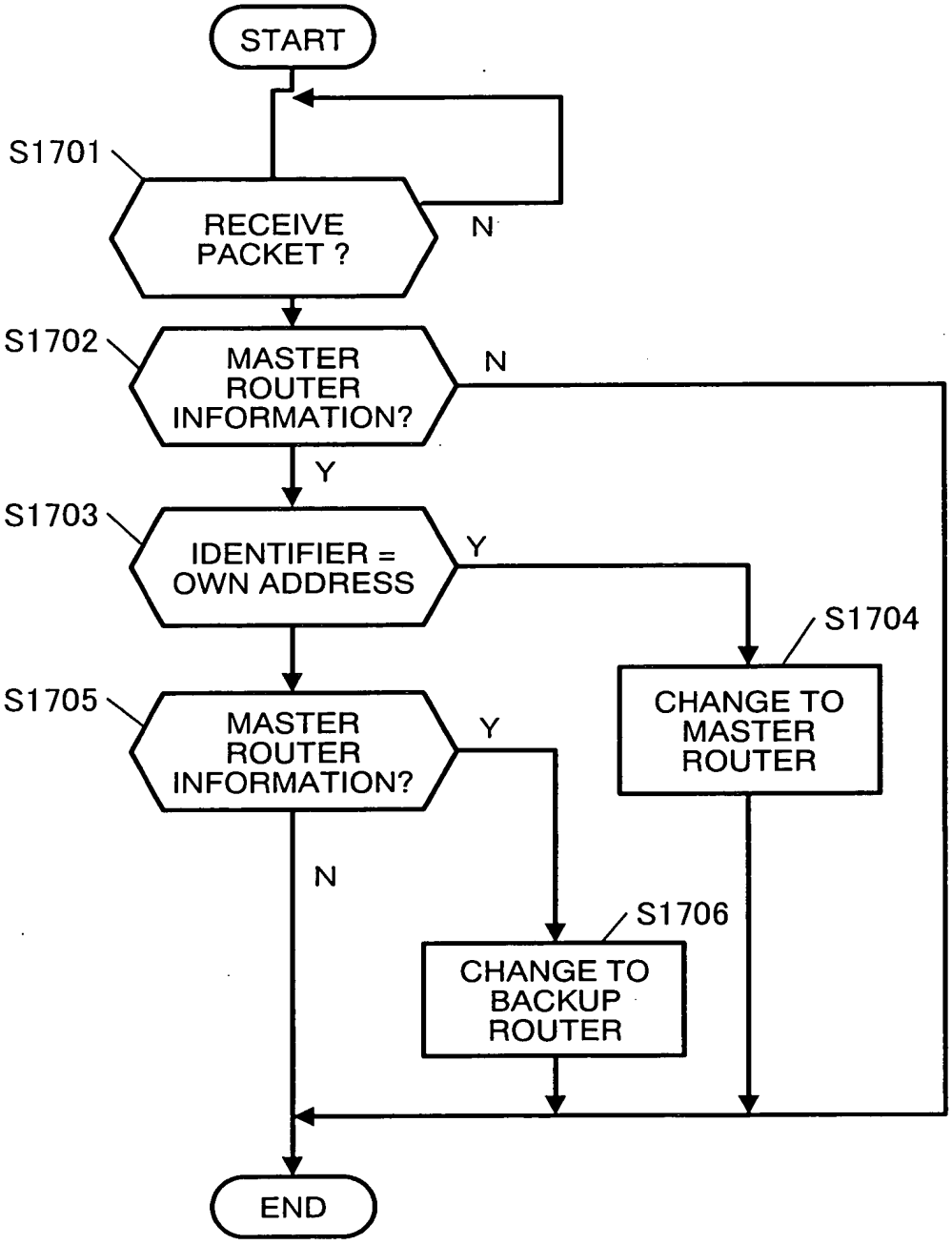
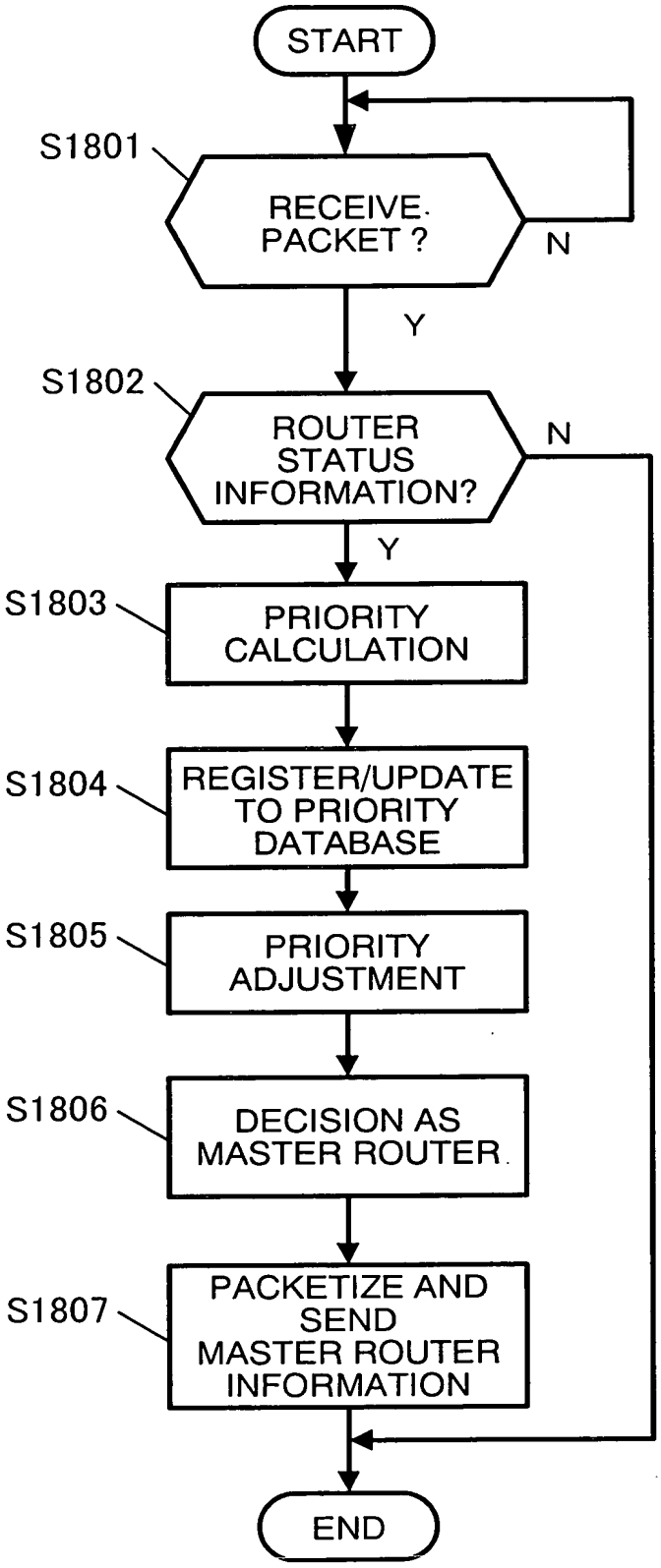

START
S1701
RECEIVE PACKET ?
N
S1702
MASTER ROUTER INFORMATION?
N
Y
S1703
IDENTIFIER = OWN ADDRESS
Y
S1704
CHANGE TO MASTER ROUTER
S1705
MASTER ROUTER INFORMATION?
Y
N
S1706
CHANGE TO BACKUP ROUTER
END

FIG.18


START
S1801
RECEIVE PACKET ?
N
Y
S1802
ROUTER STATUS INFORMATION?
N
Y
S1803
PRIORITY CALCULATION
S1804
REGISTER/UPDATE TO PRIORITY DATABASE
S1805
PRIORITY ADJUSTMENT
S1806
DECISION AS MASTER ROUTER
S1807
PACKETIZE AND SEND MASTER ROUTER INFORMATION
END

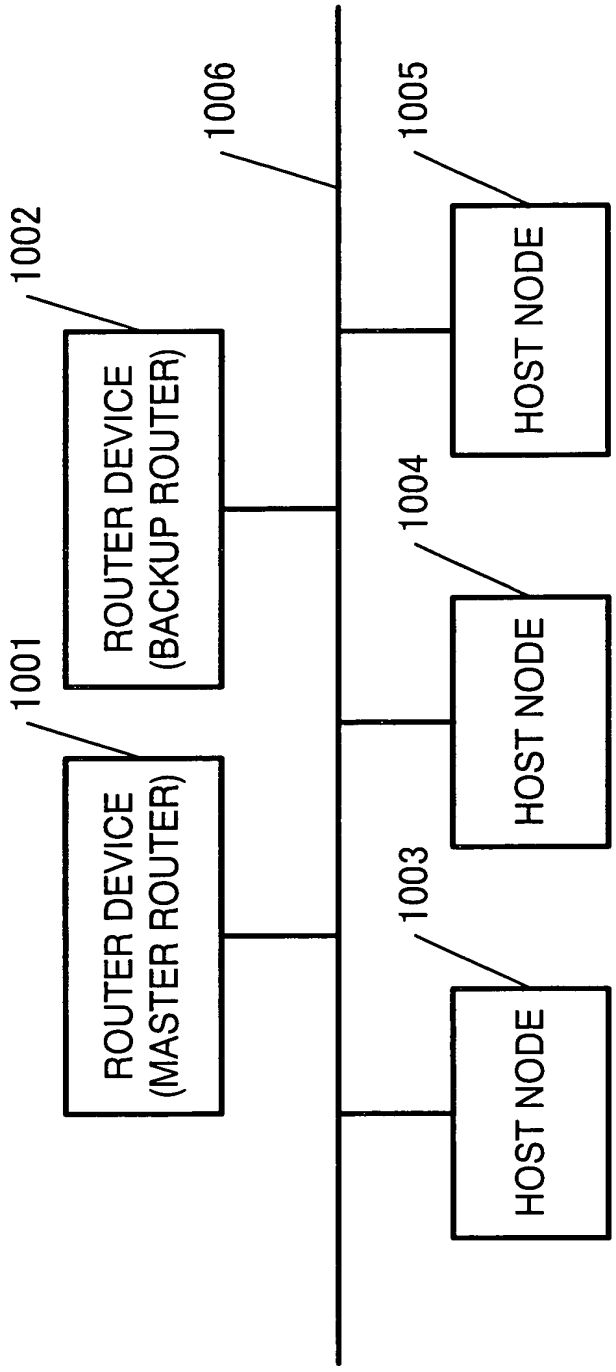

1006
1005
HOST NODE
1002
ROUTER DEVICE
(BACKUP ROUTER)
1004
HOST NODE
1001
ROUTER DEVICE
(MASTER ROUTER)
1003
HOST NODE

FIG.19